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ABSTRACT

This preliminary report, conducted over a 1-year period, involves the identification and study of educational programs that are preparing paraprofessional personnel for human service occupations. The objectives are to describe the present status of human service occupational education, to anticipate the direction human service education will take in relation to emerging human needs, and to propose curricular patterns to meet these evolving priorities. One hundred ninety-four colleges in 36 states and Canada have a total of 1006 human service programs in the following 12 general fields: child day-care center and homemaking services; communication and transportation; education; environmental services; fire prevention and safety; government service; hotel, motel, and food service; institutional services; law enforcement and corrections; medicine; recreation and parks; and social work. Human service curricula within the colleges surveyed reflected four curricular emphasis patterns: laboratory-practicum; general education; general-specialized; and specialized education. (Author/CA)

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New Careers in Human Service: A Challenge to the Two-Year College

A Preliminary Report

Martha A. Burns

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The Center for the Study of Higher Education at The Pennsylvania State University was authorized by the Board of Trustees in January 1969. Dr. G. Lester Anderson, its director, was appointed the following April. The present staff of the center numbers 23 individuals including four full-time researchers, three visiting researchers and a cadre of advanced graduate students and supporting staff.

The mission of the center is to study higher education as an area of scholarly inquiry and research. Its studies are designed not only to be relevant to the university and the Commonwealth of Pennsylvania, but also to colleges and universities throughout the nation. The immediate focus of the center's research falls into three broad areas -- governance, graduate and professional education, and human service occupation programs in two-year colleges.

Research reports, monographs and position papers prepared by staff members of the center are distributed within the university and to other institutions of higher education on a limited basis. Inquiries should be addressed to the Center for the Study of Higher Education, 110 Willard Building, The Pennsylvania State University, University Park, Pennsylvania 16802.

PREFACE

This investigation involves the identification and study of the educational programs of two-year colleges that are preparing paraprofessional personnel for human service occupations.[1] The term human service occupations as used in this study refers to those occupations that help to fulfill physical, psychological, or societal human needs, especially on a person-to-person basis.

More specifically, the study has a threefold objective: first, to describe the present status of human service occupational education--the myriad of programs in a variety of fields and the range of specialization within a given area; second, to anticipate the direction human service education will take in relation to emerging human needs; and third, to propose curricular patterns to meet these evolving priorities.

The initial approach to the study focused on identification of existing programs and description of the field of human service occupational education from that perspective. Programs were described in terms of their quality, variation among specialization areas, and variation within paraprofessions in specialized areas.

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[1]This study has been conducted over a period of one year and was basically preliminary. More extensive investigations of the topic both in variety and depth will continue for another year. This report is, therefore, preliminary and should be so considered.

A classification system was used to demonstrate the variation both within and among the occupations for which human service programs have been established.[2] This approach yields a broad picture of the present status of human service occupational education.

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[2]A single human service occupational education program often prepares individuals for several job entry positions. This point is discussed more fully on page 30 of this text.

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NEW CAREERS IN HUMAN SERVICE:
A CHALLENGE TO THE TWO-YEAR COLLEGE

A Preliminary Report

Within the last 10 years, government officials, administrators and many others have begun to view the needs of the economically and culturally disadvantaged, the mentally and physically disabled, the illiterate, the aged, and the unemployed and underemployed with new sensitivity and awareness.[1] Plans of action to meet the needs of these people have increased pressure on the presently practicing professionals and created a manpower deficit.

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[1]See Appendix A for a listing of references concerning these societal problems.

This lack of human service personnel has been further accentuated by rapid population growth, urbanization and its attendant problems, reduced manual labor needs, and changing bargaining priorities among unionized segments of society. The range of factors influencing the burgeoning plans for social and medical welfare programs are monumental as is the task of overcoming the manpower deficit affecting these plans.

In attempting to cope with various societal situations, governmental agencies on all levels have been involved in administering and supporting medical, welfare, and educational programs such as Medicare and Medicaid; aid to dependent children and the Food Stamp Program; and Operation Head Start and Upward Bound respectively. Through programs such as these have come an even clearer indication of the demand for personnel to begin to meet human needs. Job titles previously unheard of have become part of the vocabulary -- teacher aide, counselor-tutor, and social work assistant.

New employment opportunities have also been created by the same advanced technology that produced machinery as replacements for unskilled and semi-skilled workers. Particularly in the medical arts, many new sophisticated techniques requiring skilled technicians have been introduced. Artificial kidney, electrocardiograph, electroencephlograph, and the older X-ray machines

are examples. Without personnel to operate this specialized equipment, it is difficult to meet the needs of more than a handful of people, and as such equipment becomes more readily available and individuals become more aware of the potential of such machines, the skilled deficit becomes more acute. A situation paralleling that of medicine has occurred in dentistry. In that field, the new equipment and new awareness of the benefits of dental health has prompted the establishment of positions for dental hygienists, dental assistants, and dental laboratory technicians, all of which needed trained personnel.

Those responsible for schools, mental health clinics, restaurants, highways, recreation centers, convalescent homes and the like are also keenly aware of the human service personnel shortage. Accepted supporting services such as teacher aides, recreation leaders, and media technicians are often forgone for lack of trained personnel to fill positions.[2]

Professionals are unable to meet the human needs with which they are being bombarded. Governmental and social agencies in an attempt to plan for action adequate to meet growing human needs have made the role of the professional even more taxing. The solution of the problem of personnel in human service areas seems to rest with the human service paraprofessional.

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[2]Gertrude S. Goldberg, "Nonprofessionals in Human Service," in Nonprofessionals in the Human Services, ed. by Grosser, Henry and Kelly. (San Francisco: Jossey-Bass Inc., 1969), pp. 30-32.

A paraprofessional is one who can perform a significant and meaningful role in a specialized area even though his education and training does not qualify him for full membership in a profession. Or as Arthur Pearl and Frank Reisman have defined the paraprofessional (they use the synonym "nonprofessional"), this individual usually is an "indigenous worker . . . used with professional supervision in the execution of agency or program purposes."[3] Thus, a human service paraprofessional is one who possesses skills in specific compentencies related to meeting human needs.

Educating the Paraprofessional

Any discussion of the paraprofessional must deal with the source of his educational training. In the past, training of the paraprofessional in the human services has been undertaken by many agencies. This is still true. However, from among the training agencies, the two-year college has risen to prominence.

Availability, flexibility, and accessibility are three clues to the success of the two-year college as a human service paraprofessional education agency. The two-year college as an institution offers an opportunity for post-secondary education to many who would not be able to acquire it elsewhere. Generally,

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[3]Arthur Pearl and Frank Reisman, eds., New Careers for the Poor (New York: Free Press, 1965), p. 43.

it is in close contact with community needs through its personnel, students, and others who identify with the college, and it provides a segment of the labor force for the region. The two-year college also has access to community interests -- civic, service, social, and industrial -- and it has both physical and human resources convenient to the community, which are often made available for meetings, conferences, and workshops. Additionally, it seems to be well-equipped to sense human service needs and to facilitate their solution through educational means. The proximity of the two-year college to local needs, the flexibility of its curriculum because of the two-year colleges' basic aim of community service, and the availability of personnel to assist in meeting community needs are paramount in the understanding of the developing relationship between human service paraprofessional manpower needs and the two-year college.

Community services is the most readily noticed point of congruence between the objectives of the two-year college and human service paraprofessions. It is also very likely the most significant one. Other overlapping characteristics are a devotion to usefulness in a practical way, a sensitivity and intimacy with local human needs, and desire for recognition of contribution.

The project, "New Careers in Human Service: A Challenge to the Two-Year College," has been undertaken because of the

pressing human needs that have created a manpower shortage in human service areas, and the status of the two-year college as it stands ready to assist in training the personnel to meet these needs. Recognition of the mutual benefits that may be derived from the cooperative efforts of those concerned with human services and the two-year colleges can only lead to strengthening of the two-year college and a reduction of the present human service manpower deficit.

An Initial Survey of Education in Two-Year College Human Service Occupations

The two-year college has been identified by Harris,[4] Medsker,[5] and Gleazer,[6] among others, as the institution that should be meeting or preparing to meet society's growing occupational education needs including those in human service areas. With this in mind, a survey of 194 two-year colleges and two-year collegiate centers in 36 states and Canada was undertaken to locate programs currently offered or proposed in human service areas; to identify curricular patterns; and to gather information

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[4]N. C. Harris, "Major Issues in Junior College Education," Educational Record, 45, 2 (Spring, 1964), 128-138.

[5]L. L. Medsker, The Junior College: Progress and Prospect (New York: McGraw-Hill Book Company, 1960).

[6]E. J. Gleazer, Jr., This is the Community College (Boston: Hougton Mifflin Company, 1968).

concerning initiation, funding, accreditation, and staffing for new human service programs.

The names of most of the 194 colleges surveyed had been included in the Occupational Education Bulletin in the section of that publication entitled "New Programs."[7] Also, a concerted effort was made to locate all human service programs offered in two-year colleges in the Commonwealth of Pennsylvania. One hundred seventy-six colleges (a 91 percent return) responded to the survey letter, which requested that a catalog and information related to the human service programs be forwarded. Twelve colleges initially included in the study had no human service programs at the time of the survey, with such programs either being planned but not in operation, in the planning stages, or had been in operation but had been terminated.

A total of 1006 human service programs in 12 fields were located in the 176 colleges responding to the survey. These categories, listed in Table 1, provide an overview of the scope of human service occupational education.

As can be seen from the table, the number of programs in the medical field is quite high. This is understandable considering

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[7] Occupational Education Bulletins from January 1968 to June 1970 inclusive were surveyed. The "New Programs" section of each Bulletin was utilized as a source of identification of two-year colleges with human service programs.

TABLE 1

Human Service Fields*	Number of Educational Programs located in each field
Child Day Care Center and Homemaking	33
Communication and Transportation	62
Education	122
Environmental Services	31
Fire Prevention and Safety	32
Government Service	21
Hotel, Motel, and Food Services	59
Institutional Services	17
Law Enforcement and Corrections	109
Medicine	411
Recreation and Parks	61
Social Work	48
TOTAL	1006

*For a short description of each field see the "Taxonomy of Human Service Occupations," pp. 27-30.

the length of time paraprofessionals have been involved in the field of medicine. Registered nurses were trained in schools of nursing affiliated with junior colleges as far back as 1931,[8] while the first programs in urban paraprofessional areas appear

[8] Isabel Maitland Stewart, The Education of Nurses: Historical Foundation and Modern Trends (New York: The MacMillan Company, 1943), p. 227.

to have been started in 1967.[9] In fact, the relative length of time paraprofessionals have been utilized in a given human service area seems to be one indicator of the present amount of human service programming in a particular field. Acceptance of the paraprofessional role within a community also may be closely related to the length of time the paraprofessional position has existed in community agencies, and therefore, to the acceptability of educating more paraprofessionals in a given area. For example, the dental assistant has been in many dentists' offices for several years. Her role may have been altered to some degree -- she now has more direct contact with the patient in many cases -- but nevertheless, people have come to expect and respect the dental assistant. The training of such a paraprofessional than becomes more acceptable and most reasonable to the members of the community who support and to some extent control the program of the community college because they are aware of the role a particular kind of paraprofessional will be assuming in their community.

Despite this familiarity of certain types of paraprofessionals, educational programs to train them are not very well established

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[9]M. S. Koch and P. M. Wooley, "Established: A Curriculum to Train Urban Professional Assistants," Junior College Journal, 38 (October, 1967), 20-24.

in various two-year colleges and, Medsker,[10] Johnson,[11] Gleazer,[12] and Woodman[13] have all noted a need for greater involvement of these colleges in human service occupational education. The preliminary survey also indicates that two-year colleges are less involved in human service occupational education than they are in industrial technical education and transfer education programs. Of the colleges surveyed, 81 percent had 10 or fewer human service programs, while 62 percent had five or fewer human service programs. In contrast, only 2 percent of the colleges had 20 or more human service programs and only 19 percent had 11 or more such programs. The distribution of human service programs in the colleges in the survey is graphically presented in Figure 1.

The reasons for the small number of programs are not clear, but they could indicate a lack of acceptance of this type of education by the community, a lack of awareness of the contributions

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[10]L. L. Medsker, "Implications of Social and Cultural Change for Junior College Administrators," in Administering the Community College in a Changing World, ed. by S. V. Martorana and P. Hunter (Buffalo, New York: The School of Education, The State University of New York at Buffalo, 1965).

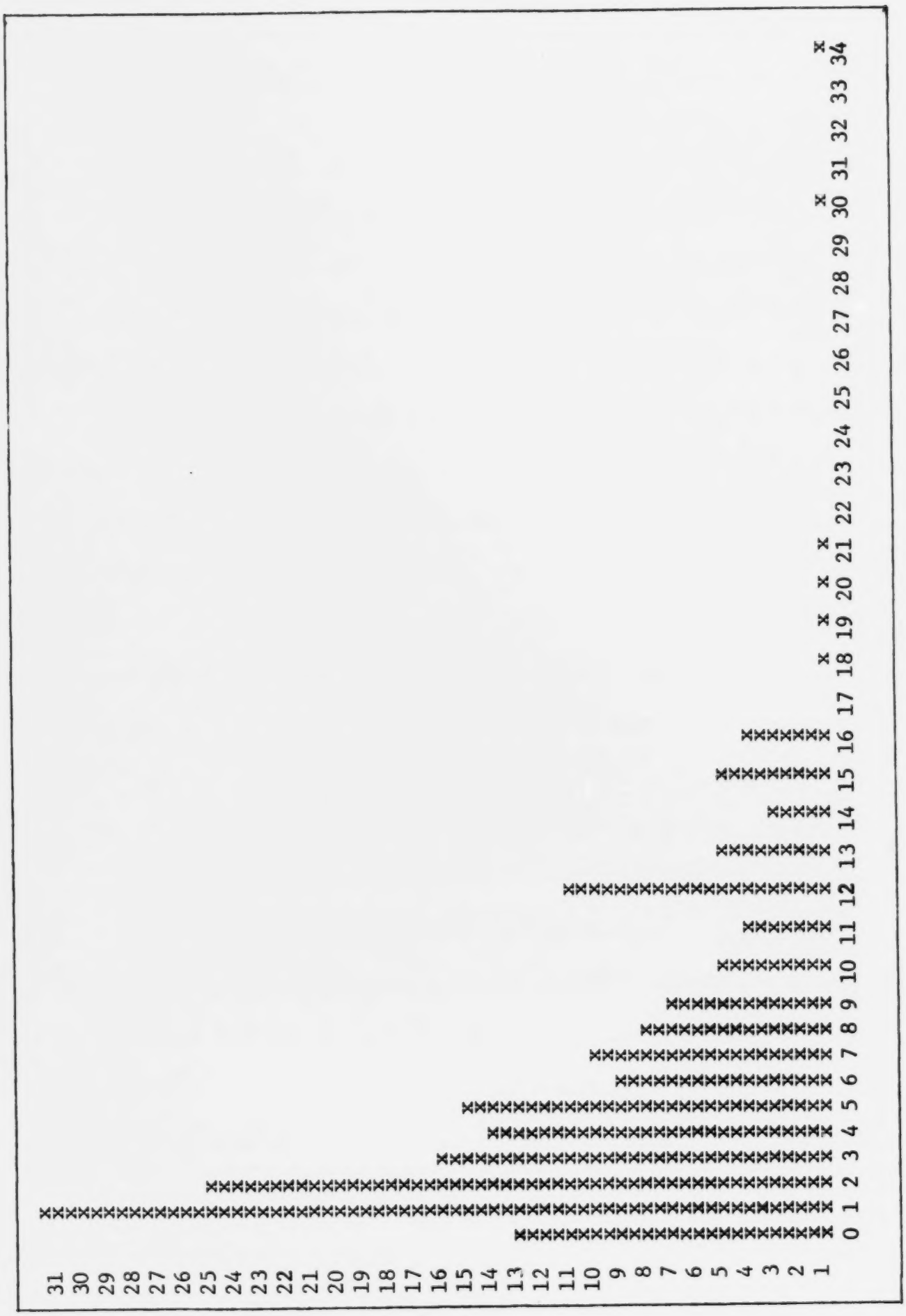
[11]B. Lamar Johnson, Islands of Innovation, Expanding: Changes in the Community College (New York: Glencoe Press, 1969).

[12]E. J. Gleazer, Jr., "The Community College Issue of the 1970's," Educational Record, 51, 1 (Winter, 1970), 47-54.

[13]Everett M. Woodman, "Our Message and Our Mandate," Junior College Journal, 40, 1 (September, 1969), 6-7.

FIGURE 1

Number of Human Service Programs
in the Colleges Surveyed



paraprofessionals can make to human services, or even difficulties in establishing such programs because of finances, facilities, and faculties.

The Curricula of Human Service Programs

Although the individual colleges surveyed did not for the most part have a great number of human service programs, those offered collectively give a picture of the nature of the curricula of these education programs. This subject, the curricula of occupational education, has warranted and received considerable attention from those people concerned with educating manpower for the labor force and those concerned for the future of the two-year college.

There are three basic schools of thought regarding human service occupational education, and occupational education in general. These might be referred to as the experiential, liberal arts/general education, and eclectic schools. The experiential school of thought places emphasis on occupational education as a legitimate concern of higher education. Its supporters view curricula containing practical coursework to be appropriate and desirable. Grant Venn, one notable spokesman for this point of view, has stated, "Higher education should assume a greater responsibility for the education of youth and adults for occupational competence . . . at the less-than-

baccalaureate level."[14] Venn has also noted:

> Many college administrators, who watch 40 percent of their entering freshmen class drop out along the way, act as though the whole problem was far removed from their province, that any time spent in college is to the good. Their assumption seems to be that the best and only necessary preparation for a job today is the longest possible immersion in academic and professional subjects. This assumption at once fails to heed the factor of youth unemployment and misapprehends the relevance of general education. The liberal, or academic, studies do enhance the long-range civic and occupational competence of a person; they do not, at least below the baccalaureate degree level and as a rule, qualify young people for meaningful job entry.[15]

Several other authors well acquainted with the field of post-secondary occupational education would agree with Venn.[16]

The liberal arts/general education point of view differs noticeably in focus from the experiential school of thought.

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[14]Grant Venn, Man Education and Work (Washington, D. C.: American Council on Education, 1964), p. 163.

[15]Ibid., pp. 13-14.

[16]This list would include:

a) Angelo Gillie, Occupational Education in the Two-Year College (University Park, Pa.: The Pennsylvania State University, Department of Vocational Education, 1970).
b) Seymour Harris, The Market for College Graduates (Cambridge, Massachusetts: Harvard University Press, 1949).
c) Ivar Berg, Education and Jobs: The Great Training Robbery (New York: Praeger Publishers, 1970).
d) S. V. Martorana and P. F. Hunter, Administering the Community College in a Changing World (Buffalo, New York: The University Council for Education Administration and School of Education, State University of New York at Buffalo, 1966).

Supporters of the liberal arts/general education point of view emphasize the need for general education as not only the basis for occupational education programs but also the bulk of the curricular content. The general education point of view is characterized by Marvin Rapp. He states, "With emphasis on technical preparation and specialization, some educators and industrialists rightfully warned that the general aspects of learning must not be ignored..."[17] Rapp also referred to survey courses offered as a part of many occupational programs by saying, "Like many of the survey courses before them, these general education courses cut across many fields. In attempting subject matter integration in various fields, many of these courses brought an adulteration to the liberal arts... Shallowness rather than depth (in liberal arts content) seemed to result.[18] In reference to the need for the liberal arts component in all two-year college curricula, Rapp continued "Some still fail to realize that the stimulation and discipline of liberal arts is needed as much, if not more by the 'terminal technician' student..."[19] In summation, Rapp's point of view is: "More emphasis on the liberal arts [is the] trend community colleges should and are beginning to follow."[20] Support for this

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[17]Marvin A. Rapp, "Liberal Arts and General Education," Junior College Journal, 36, 8 (May, 1966), 26.

[18]Ibid.

[19]Ibid.

[20]Ibid.

view point might be expected from Devall[21] and Phenix.[22]

An advertisement in the Junior College Journal, although somewhat atypical, stands to further illustrate the attitudes existent within some colleges that subscribe to this general education school of thought. The stipulations for the applicant for the presidency of one college read: "Candidate should have a firm conviction that the community college is a genuine academic institution...that its quality in the terminal (occupational) curricula is as firmly academic as in the transfer curricula."[23]

The eclectic point of view regarding occupational education programs would be likely to agree with the experientialists in some ways and with the liberal arts/general education people in other ways. As the prototype of the eclectic, Norman Harris has stated: "Semiprofessional and technical education is a job for colleges. It is respectable..."[24] On the other hand Harris aligns himself to some extent with the general education people when he ways, "It would be expected that the level of 'supporting

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[21]W. B. Devall, "Community College: A Dissenting View," Educational Record, 49, 2 (Spring, 1968), 168-172.

[22]P. H. Phenix, Education and the Common Good (New York: Harper and Brothers, 1961).

[23]Junior College Journal, 38, 5 (February, 1968), 76.

[24]Norman C. Harris, "Major Issues in Junior College Education," Educational Record, 45, 2 (Spring, 1964), 131.

theoretical' courses and 'general education' courses would be such that many entering freshmen students might find them too rigorous. Consequently, a 'developmental' or 'vestibule' program for some first year under-achievers might be necessary. Courses in this developmental core would not carry credit toward the Associate degree."[25]

The question that comes to mind now might well be, "How do the human service occupational educational programs offered in the colleges surveyed look in relation to the three points of view about occupational curricula cited above?" To approach this question the component parts of the curricula -- the courses within them -- must be defined. Five categories of course offerings have been employed to describe the activities and focuses of these courses. These categories should be given special note since they are referred to in later discussion regarding human service curricular emphasis patterns:

1) General Academic Subjects (GA) -- courses dealing with general college material in areas with little or no direct application to performance of occupational responsibilities such as "American History,"

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[25]Norman C. Harris, "The Accreditation of Technical Schools -- An Analysis of Some Major Issues," The North Central Association Quarterly, 4 (Spring, 1968), 319.

"English Composition," and "College Mathematics" in a Human Service Recreation Leader program.

2) Related Academic Subjects (RA) -- courses with applicability to a field of occupational specialization but not designed nor executed as specialized job training courses -- "Business Mathematics" in a Public Administration program, for example.

3) Skill Theory and Technique Subjects (STT) -- courses that are designed to focus attention on the theoretical basis of an area of occupational specialization, and specifically on the tasks involved in fulfilling the responsibilities of particular job, such as "Introduction to Library Services" in a Library Assistant program.

4) Laboratory Subjects (L) -- experience-centered courses designed to expose students to techniques needed to perform the duties of a human service paraprofessional. A "Hematology Laboratory" course in a Medical Laboratory Technician program would be an example.

5) Practicum Subjects (P) -- "In-the-field" experience courses that provide student exposure to actual working conditions such as "Supervised Instructional Experiences with Young Children" in a Child Care program. In certain areas, practicum experience is necessary because baking bread or typing blood cannot be learned without practice.

The occupational curricula observed in the survey had varying quantities of the subjects in the course categories listed above, mostly determined by occupational requirements. For example, virtually all medical programs had laboratory courses in their curricula while few journalism programs included laboratory orientation. In some instances, where the academic philosophy was to educate all students in a general education tradition, occupational course work was an elective option. In other cases, colleges emphasized practical work, seeing their role to educate people for placement as skilled members of the labor force. Four definite curricular emphasis patterns appeared in human service occupational education programs in terms of the courses offered in each of the categories previously discussed: General Education Emphasis, General-Specialized Curricular Emphasis, Specialized Education Emphasis, and Laboratory-Practicum Emphasis.

General Education Emphasis Pattern

This sequence is characteristic of human service occupational programs in journalism as well as those in selected two-year colleges that traditionally emphasize the liberal arts. A typical program of this type consists of between 70 and 90 percent general academic and occupationally related academic subjects, and 30 to 10 percent skill theory and technique, laboratory experience, and practicum experience courses.

Examples of General Education Emphasis Curricula:

Journalism -- White Pines College, Chester, New Hampshire.[26]

"The Journalism Curriculum is a practical program including Layout, Photography, News and Feature Writing. It is primarily designed for a student who is seeking placement in the field of Photo-Journalism." The percentage of general and related academic subjects in this program is 74 percent, while the balance of the program -- 26 percent -- is composed of skill theory and technique subjects.

First Year

(GA) (GA)	English Composition (two semesters)
(GA) (GA)	History of Civilization (two semesters)
(STT) (STT)	Journalism - News Writing and Reporting (two semesters)
(GA)	General Psychology
(STT)	Basic Photography
(GA) (RA)	Electives

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[26] White Pines College Catalog 1969-1972 (Chester, New Hampshire: White Pines College), p. 25.

Second Year

(GA)	American History
(RA)	Creative Writing
(GA) (RA)	Principles of Economics (two semesters)
(RA)	Public Relations
(STT)	News Layout
(STT)	Advanced Photography
(RA) (GA)	Electives

Police Administration - Kennesaw Junior College, Marietta, Georgia.[27] General and related academic courses, 75 percent; skill theory and technique, laboratory, and practicum courses, 25 percent:

Humanities

(GA) (GA)	English Composition (two semesters)
(GA) (GA)	Western World (two semesters)

Natural Science and Mathematics

(GA)	College Algebra
(GA)	Biology, Chemistry or Physics

Social Science

(GA) (GA)	Western Civilization (two semesters)
(GA)	American History
(RA)	American Government

Major Field Requirements

(STT)	Introduction to Law Enforcement
(STT)	Criminology
(STT)	Industrial and Retail Security or Corrections
(STT)	Police-Juvenile Relations
(STT)	Police Administration
(STT)	Introduction to Criminal Law

General-Specialized Curricular Emphasis Pattern

This sequence is characteristic of human programs in which occupational skills are relatively undelineated either because of

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[27] Kennesaw Junior College 1970-1971 (Marietta, Georgia: Kennesaw Junior College), p. 56.

the scope of the program offered, such as "Career Programs in Public Service," or because of the newness of a given paraprofession or programs of training for entrance into a new paraprofession, exemplified by a "Rehabilitation Assistant" program.

A program to which this pattern of emphasis is applicable consists of between 50 to 70 percent general academic and related academic courses and 50 to 30 percent skill theory and technique, laboratory, and practicum courses.

Examples of the General-Specialized Curricular Pattern:

Career Program in Public Service -- Harrisburg Area Community College, Harrisburg, Pennsylvania.[28] General and related academic, 64 percent; skill theory and technique, laboratory and practicum courses, 36 percent:

First Year

(GA) (GA)	English Composition (two semesters)
(GA)	Mathematics Elective
(RA)	American Federal Government (Political Science)
(RA)	State and Local Government (Political Science)
(RA)	General Psychology
(STT)	Principles of Public Administration
(STT)	Introduction of Public Service
(STT)	Social Service and the Law
(GA)	Elective

Second Year

(GA) (GA)	Science (Biological, Physical) (two semesters)
(STT)	Seminar in Public Service
(STT)	Principles of Case Work
(GA)	Introduction to Sociology
(GA)	Effective Speech and Public Speaking
(GA)	Electives

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[28] Harrisburg Area Community College Catalog 1969-1970 (Harrisburg, Pennsylvania: Harrisburg Area Community College), p. 60.

Rehabilitation Assistant Education -- Middlesex County College, Edison, New Jersey.[29] General and related academic courses, 65 percent; skill theory and technique and practicum courses, 35 percent:

First Semester
(RA) Human Anatomy and Physiology I
(GA) English I
(GA) Introduction to Elementary Statistics
(STT) Principles of Rehabilitation I
(GA) Sociology I

Second Semester
(RA) Human Anatomy and Physiology II
(GA) English II
(RA) Psychology I
(STT) Principles of Rehabilitation II
(GA) Sociology II

Third Semester
(GA) Introduction to Literature or Elective
(RA) Psychology II
(STT) The Disorganized Personality
(L) Practices of Rehabilitation I
(STT) Introduction to Community Organizations

Fourth Semester
(GA) General Economics
(RA) Social Psychology
(P) Practices of Rehabilitation
(STT) The Disabled and Disadvantaged in Society
(GA) Elective

Specialized Education Emphasis Pattern

This sequence is characteristic of the majority of occupational programs in child care, education, health services, hotel-motel-food

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[29] Middlesex County College Catalog 1968-1969 (Edison, New Jersey: Middlesex County College), p. 42.

services, and social work. A program to which this emphasis pattern would apply consists of 25 to 50 percent general academic and related academic courses with the balance of 75 to 50 percent of the curriculum composed of skill theory and technique, laboratory and practicum courses.

Examples of Specialized Education Emphasis Curricula:

Hotel Technology (Hotel Administration Option) -- New York City Community College, New York City, New York.[30] General and related academic courses, 29 percent; skill theory and technique, laboratory and practicum courses, 71 percent:

First Year		
(STT)	(STT)	Hotel Organization and Operation (two semesters)
(STT)	(STT)	Basic Baking (two semesters)
(STT)	(STT)	Basic Food Preparation (two semesters)
(GA)		Elements of Accounting
(GA)		Statistics or Elements of College Mathematics
(GA)		Principles of Science
(STT)		Dining Room Operation
(STT)		Food Control
(STT)		Hotel Accounting
(RA)		Communication Arts and Skills
(GA)		Social Science Elective
Second Year		
(STT)		Dining Room Operation
(STT)		Food Control
(STT)		Food Purchasing
(STT)		Front Office Procedures
(STT)	(STT)	Hotel Accounting (two semesters)
(STT)		Beverage Control
(STT)		Stewarding
(STT)		Sales Promotion
(STT)		NCR Machine Operation
(STT)		Material and Maintenance
(RA)	(RA)	Communication Arts and Skills (two semesters)
(RA)		Social Science Elective

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[30] New York City Community College of the City University of New York Information Bulletin and Announcement of Courses for 1969-1970 (New York: New York City Community College), p. 84.

Medical Assisting -- Orange Coast College, Costa Mesa, California.[31] General and related academic courses, 35 percent; skill theory and techniques, laboratory and practicum courses, 65 percent:

First Year		
(STT)		Orientation to Health Careers
(STT)	(STT)	Medical Office Procedures (two semesters)
(STT)		Beginning Typewriting or Typewriting Review
(RA)		Introduction to Business
(RA)		Introductory Psychology
(GA)		English - Freshman Composition
(STT)		Patient Care
(STT)		Intermediate Typewriting
Second Year		
(STT)		Human Diseases
(STT)		Medical Office Management
(STT)		Bookkeeping
(STT)		Advanced Typewriting
(RA)		General Human Anatomy
(P)		Work Experience (Medical Assisting)
(STT)		Transcribing Machine Techniques
(STT)		Duplicating Processes and PBX
(GA)		Political Science or Elective
(GA)		American History or American Civilization
(RA)		Business Machines

Laboratory-Practicum Emphasis Pattern

This sequence is characteristic of medical occupational programs as well as human service programs in selected two-year colleges where emphasis is placed on the practical-experimental aspects of learning an occupation. Programs of the Laboratory-Practicum type

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[31] Orange Coast College Catalog, 1969-1970 (Costa Mesa, California: Orange Coast College), p. 92.

are composed of 75 to 100 percent skill theory and technique, laboratory and practicum courses with 25 percent or less of the curriculum devoted to general academic and related academic subjects.

Examples of Laboratory-Practicum Emphasis Curricula:

Clinical Laboratory Technology -- Forest Park Community College, Junior College District of St. Louis, St. Louis, Missouri.[32] General and related academic courses, 22 percent; skill theory and technique, laboratory and practicum courses, 78 percent:

First Year	
(RA) (RA)	Communication (two semesters)
(STT)	Chemistry of Human Functions
(STT)	Introductory Biology
(STT)	Technical Mathematics
(STT)	Human Anatomy and Physiology
(STT)	General Microbiology
(GA)	American Civilization
(RA)	Human Relations
Second Year	
(LANDSTT)	Bacteriology-Parasitology-Serology
(LANDSTT)	Hematology
(STT)	Fundamentals of Basal Metabolism and Electrocardiography
(STT)	Orientation to the Medical Laboratory
(P) (P)	Clinical Practice (two semesters)
(LANDSTT)	Clinical Chemistry
(LANDSTT)	Blood Bank
(LANDSTT)	Routine Analysis

Institutional Food Service Supervisor -- East Central Regional

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[32]The Junior College District of St. Louis Bulletin, 1969-1970 (St. Louis County, Missouri: The Junior College District of St. Louis), p. 64.

Institute, Indiana Vocational Technical College, Muncie, Indiana.[33] General and related academic, 17 percent; skill theory and technique, laboratory and practicum courses, 83 percent:

First Year

(STT) (STT)	Sanitation and Food Storage (two quarters)
(LANDSTT)	Meat Analysis and Fabrication (two quarters)
(L) (L)	Baking (two quarters)
(STT)	Introduction to Hospitality Careers
(STT) (STT)	Nutrition (two quarters)
(STT)	Volume Food Management
(STT)	Menu Planning
(STT)	Mathematics for Chefs
(STT)	Business Mathematics
(RA)	Communication Skills
(RA)	Public Speaking
(GA)	General Psychology

Second Year

(LANDSTT)	Entrees (two quarters)
(LANDSTT)	Soups and Sauces (two quarters)
(LANDSTT)	Vegetable Preparation and Pantry Skills (two quarters)
(STT)	Dining Room Procedures
(LANDSTT)	Buffet Preparation and Service
(P)	Kitchen Management Internship
(P)	Internship for Restaurant Management
(STT)	Personnel Management for Unit Supervisors
(RA)	Commercial Law
(GA)	Introduction to the World of Work

To summarize the findings of the survey in terms of human service occupational education curricula, several points must be noted:

1) Curriculum philosophies differ between colleges. These differences have an effect on the human service programs

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[33] Indiana Vocational Technical College General Catalog 1968-1970 (Indianapolis, Indiana: Indiana Vocational Technical College), pp. 83-84.

offered at various colleges.

2) The nature of the human service paraprofession for which a student is being prepared has an effect not only on the course content but on the activities and experience necessary for job entry as well.

3) The sum total of colleges' philosophic variation and occupational requirement differences have been consolidated into four curricular emphasis patterns. Figure 2 demonstrates the relative emphasis of each of these curricular patterns on general and related academic course work in comparison to the course work focused on skill training in classroom, laboratory, and practical experience.

Guide to the Scope of Occupational Opportunities in Human Service Paraprofessions

To better assess the scope of educational and occupational opportunities in the human service curricula, some form of organization was needed. An attempt to bring about this organization by the author resulted in the development of a "Taxonomy of Human Service Occupations." The format of this taxonomy was modeled after those of the Dictionary of Occupational Titles[34] and the Taxonomy of

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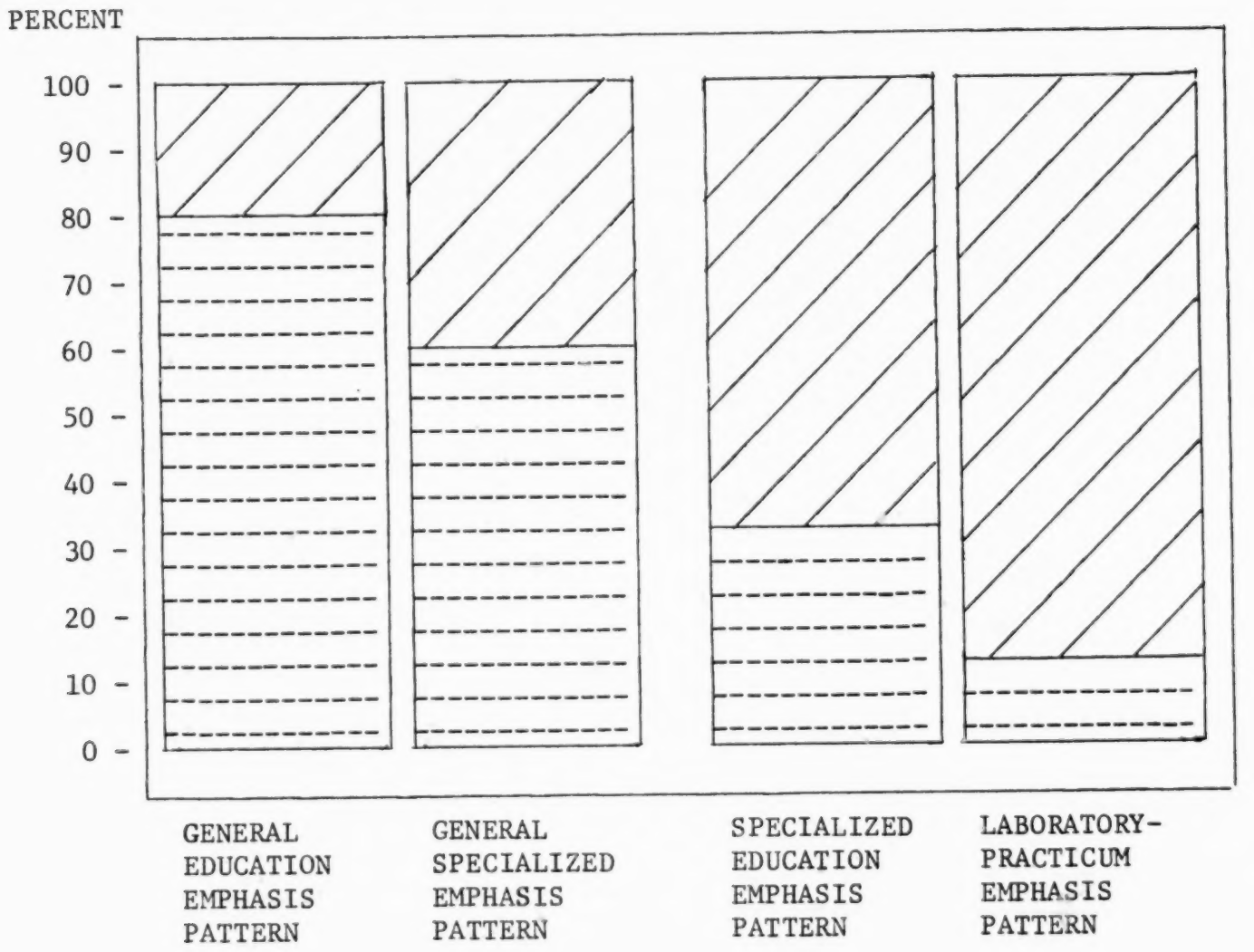
[34]U. S. Employment Service, Manpower Administration, U. S. Department of Labor, Dictionary of Occupational Titles, Vol. II, 3rd ed. (Washington, D. C.: U. S. Government Printing Office, 1965).

FIGURE 2

Human Service Education --
Curricular Emphasis Pattern



Academic Disciplines,[35] while the content was gleaned from the responses of participating colleges in this survey. Although the colleges used different criteria in selecting their program titles, the taxonomy shows each separate occupational title as listed by each college.

From the 381 occupational titles submitted by the colleges, 12 significant groupings emerged:

Child Day Care Center and Homemaking Services -- awareness of children as they learn, grow and develop, and of home situations in times of stress and normalcy.

Communication and Transportation -- focuses on the dissemination of ideas and information through mass media and the transmission of peoples from place to place.

Education -- consideration for the varied pre-professional services utilized in the educational process including classroom, library, and audio-visual assistants.

Environmental Services -- concern for the environment of individuals and communities in terms of planning and controlling various housing needs, park lands and natural resources.

Fire Prevention and Safety -- concern with efficient and effective fire prevention, control and safety.

Government Service -- regard for the public domain with emphasis on executive aspects of its maintenance and the legal system.

Hotel, Motel, and Food Services -- concern for availability of well-managed hotels and motels, and the provision of commercial and institutional food services.

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[35]National Center for Education Statistics, A Taxonomy of Academic Disciplines (Draft) (Washington, D. C.: Office of Education, 1969).

Institutional Services -- provision of vital services within institutions both public and private such as prisons, hospitals, and orphanages.

Law Enforcement and Corrections -- primary considerations are maintenance of public order, protection of persons and property, and administration of emergency assistance.

Medicine -- consideration is given to the mental and physical health of individuals and the provision of well-run facilities for medical care.

Recreation and Parks -- focuses on adequate recreational facilities and safe and constructive activities of people of all ages.

Social Work -- concern for the physical, social, and economic well-being of individuals as they function within the social settings of their families, neighborhoods and communities.

These definitions provided the criteria for the distribution of occupational titles within the taxonomy. Those titles that met the criteria of more than one human service field definition were included in the listing of each appropriate field. For example, an institutional food service aide is listed under Institutional Services and Hotel, Motel, and Food Services. The taxonomy also provides a descriptive presentation of the breadth of the human service occupational area; a classification of occupational titles applicable to each of the 12 human service fields; an indication of the frequency and consistency of occupational title usage (each occupational title listed was used by at least one college in the survey); and an index of each human service occupational title that appears in the coded taxonomy. Cross references for titles appearing

in more than one human service field are noted with code and page numbers.

Designed to offer assistance to those people considering involvement in human service education, the "Taxonomy of Human Service Occupations" is intended to provide a preliminary picture of the occupational opportunities in human service fields as well as an indication of the growing need for education programs in these areas.

TAXONOMY OF HUMAN SERVICE OCCUPATIONS

Index of Human Service Fields

01.00 Child Day Care Center and Homemaking Services

02.00 Communication and Transportation

03.00 Education

04.00 Environmental Services

05.00 Fire Prevention and Safety

06.00 Government Service

07.00 Hotel, Motel and Food Service

08.00 Institutional Services

09.00 Law Enforcement and Corrections

10.00 Medicine

11.00 Recreation and Parks

12.00 Social Work

01.00 Child Day Care Center and Homemaking Services -- awareness of children as they learn, grow and develop and of homes both in times of stress and normalcy.

01.01 Child Care and Homemaking Supervisor

01.02 Child Care Manager

01.03 Child Care Worker

01.04 Child Development Technician

01.05 Home and Community Child Development Aide

01.06 Child Care and Guidance Worker

01.07 Residential Child Care Aide

01.08 Home Extension Aide

01.09 Community Aide: Homemaker

01.10 Day Care Center Worker

01.11 Institutional Child Care Aide

01.12 Pediatric Aide

02.00 Communication and Transportation -- focuses on the transmission of ideas and information for popular consumption and the transmission of people and products from place to place.

- 02.01 Communications Worker
- 02.02 Communications Technologist
- 02.03 Radio and T. V. Broadcaster
  - 02.03A Radio Broadcaster
  - 02.03B Telecaster
  - 02.03C Radio Technologist Announcer
- 02.04 Telecommunicator
- 02.05 Broadcasting Technologist
- 02.06 Telecommunications Radio and T. V. Programming and Production
- 02.07 Journalist
- 02.08 Educational Communications Aide
  - 02.08A Educational Media Technician
  - 02.08B Educational Resources Technician
  - 02.08C Library Technical Assistant/Audio Visual
  - 02.08D Library Assistant
  - 02.08E Teacher Aide/Audio Visual
  - 02.08F Instructional Media Technician
  - 02.08G Instructional Media Assistant
- 02.09 Media Center Technologist
- 02.10 Traffic and Transportation Manager

02.11 Traffic and Safety Technologist

02.11A Air Traffic Technologist

02.11B Highway Traffic Technologist

03.00 Education -- consideration for the varied pre-professional services utilized in the educational process including classroom, library and audio-visual assistance.

03.01 Teacher Aide (Elementary-Secondary)

03.01A Teacher Assistant

03.01B Assistant Teacher

03.01C Instructional Aide

03.01D Education Aide

03.01E Education Technician

03.01F Bilingual Teacher Aide

03.01G Teacher Aide/Audio Visual

03.01H Recreational Teacher Aide

03.01I Vocational Music Education Aide

03.02 Nursery School Assistant

03.03 Special Education Aide

03.04 Mental Retardation Technologist

03.05 Library Technical Assistant

03.05A Library Technical Aide

03.05B Library Assistant

03.05C Library Technician

03.05D Library Technical Assistant/Audio Visual

03.06 Instructional Media Assistant

03.06A Instructional Media Technician

03.06B Educational Media Technician

03.06C Teacher Aide/Audio Visual

03.06D Library Technical Assistant/Audio Visual

03.06E Educational Communications Aide

03.07 Media Center Technician

03.08 Learning Resources Technician or Educational Resources Technician

03.09 School Services Technician

04.00 Environmental Services -- concern for the environment of individuals and communities in terms of planning and controlling various housing needs, park lands and natural resources.

04.01 Urban Planner

04.02 Urban and Regional Planner

04.03 Urban Redevelopment and Public Housing

04.04 Urban Development Assistant or Urban Development Technician

04.05 Urban Affairs Technologist

04.06 Urban Technical Aide

04.07 Plumbing Inspector Aide

04.08 Public Environmental Health Technician

04.08A Environmental Health Assistant

04.08B Environmental Health Technician

04.09 Environmental Technologist

04.10 Park Manager

04.11 Parks and Recreation Supervisor

04.12 Natural Resources Manager

05.00 Fire Prevention and Safety -- concern with efficient and effective fire prevention, control, and safety.

- 05.01 Fire Administrator
- 05.02 Fire Technician
- 05.03 Fire Science Technician
- 05.04 Fire Science and Prevention Technician
- 05.05 Fire Prevention Technician
- 05.06 Fire Protection Technician
- 05.07 Fire Safety Technician
- 05.08 Fire and Safety Technician

06.00 Government Service -- regard for the public domain with emphasis on executive aspects of its maintenance and the legal system.

06.01 Municipal Manager

06.02 Public Administrator

06.03 Public Administrator: Law Enforcement

06.04 Public Administration Assistant

06.05 Public Service Aide

06.06 Public Health Inspector

06.07 Public Health Aide

06.08 Plumbing Inspector Aide

06.09 Court Reporter

06.10 Law Clerk: Legal Aide

06.11 Legal Technician

06.12 Law Enforcement: Local Police Agency

07.00 Hotel, Motel and Food Service -- concern for availability of well-managed hotels and motels and the provision of food services both commercially and institutionally.

07.01 Hotel-Motel Manager

07.01A Hotel, Motel, and Restaurant Manager

07.01B Hotel and Restaurant Manager

07.01C Hotel and Food Service Manager

07.02 Hotel Technician or Food and Lodging Technician

07.03 Food Service Manager or Hospitality: Food Service Manager

07.03A Food Service Supervisor

07.03B Food Service Administrator

07.03C Chef Manager

07.03D Hotel, Motel, and Restaurant Manager

07.03E Hotel and Food Service Manager

07.03F Institutional Food Service Supervisor

07.03G Professional Food Service: Management

07.03H Restaurant Operator

07.03I Business: Foods Management

07.04 Food Management Technician

07.04A Food Service Technician

07.04B Food Technician

07.04C Food and Lodging Technician

07.04D Commercial Food Service Technician

07.04E Public Restaurants: Commercial Food Service Technician

07.04F Institutional Food Service Aide

07.05 Food Server

07.06 Food Distributor

07.07 Food Service: Culinary Arts

07.07A Baking Technician

07.07B Cooking Technician

07.07C Commercial Cook

07.07D Food Preparation Assistant

08.00 Institutional Services -- provision of vital services within institutions both public and private such as schools, prisons and hospitals.

08.01 Institutional Food Service Supervisor

08.02 Institutional Food Service Aide

08.03 Laundry Manager

08.04 Building Services Manager: Institutional Housekeeper or Executive Housekeeper

08.05 Hotel, Restaurant and Institutional Manager

08.06 Nursing Home Administrator

08.07 Long Term Care Administrator

08.08 Health Facilities Manager

08.09 Hospital Unit Manager

08.10 Hospital Supervisor

08.11 Institutional Child Care Aide

09.00 Law Enforcement and Corrections -- primary considerations are maintenance of public order, protection of persons and property and administration of emergency assistance.

09.01 Police Administrator

09.01A Police Manager

09.01B Police Science Administrator

09.01C Corrections Administrator

09.01D Public Administrator: Law Enforcement

09.02 Law Enforcement Officer

09.02A Law Enforcement: Probations Officer

09.02B Law Enforcer: Corrections/Probations

09.02C Probations and Parole Officer

09.02D Law Enforcement: Local Police Agency

09.03 Policemen Aide

09.03A Police and Safety Aide

09.03B Corrections Aide

09.03C Correctional Worker

09.03D Correctional Services Assistant

09.03E Law Enforcement Technician

09.03F Police Technician

09.04 Correctional Rehabilitation Worker

09.05 Juvenile Rehabilitation Aide

09.06 Crime Laboratory Technician

10.00 Medicine -- consideration is given to the mental and physical health of individuals and the provision of well-run facilities for medical care.

10.01 Nurse

10.01A Registered Nurse

10.01B Graduate Nurse

10.01C Licensed Practical Nurse

10.01D Practical Nurse

10.01E Vocational Nurse

10.01F Technical Nurse

10.02 Nurses Aide

10.03 Intensive Care Aide

10.04 Operating Room Technician or Surgical Technician

10.05 Medical Therapy Technician

10.05A Inhalation Therapy Technician

10.05B Radiation Therapy Technician

10.05C Radiologic Technician

10.05D Cardiopulmonary Technologist

10.06 Medical Therapy Aide

10.06A Transfusion Therapy Aide

10.06B Inhalation Therapy Assistant or Inhalation Therapy Aide

10.07 Medical Assistant

10.07A Doctor's Assistant

10.07B Clinical Medical Assistant

10.07C Medical Assisting Technician

10.07D Pediatric Aide

10.08 Health Aide

10.08A Health Technical Aide

10.08B Community Health Aide

10.08Ba Community Medicine Assistant

10.08Bb Community Mental Health Aide

10.08Bc Community Mental Health Assistant

10.08Bd Community Mental Health Technician

10.08C Public Health Aide

10.08D Home Health Aide

10.09 Mental Health Associate

10.09A Mental Health Assistant

10.09B Mental Health Worker

10.09C Mental Health Technician

10.09D Psychiatric Technician

10.09E Community Mental Health Assistant

10.09F Community Mental Health Aide

10.09G Community Mental Health Technician

10.10 Mental Retardation Technician

10.11 Occupational Therapy Assistant

10.11A Occupational Therapy Aide

10.11B Occupational Therapy Technician

10.12 Physical Therapy Assistant or Physical Therapy Aide

10.13 Rehabilitation Assistant

10.14 Orthopedic Assistant

10.15 Optometric Aide

10.16 Ophthalmic Assistant

10.17 Dental Hygienist

10.18 Dental Assistant or Dental Assisting Technologist

10.19 Medical Diagnostic Information Technician

- 10.19A Electroencephalography Technician
- 10.19B Respiratory Technician
- 10.19C X-ray Technician
- 10.19D Cardiopulmonary Technologist

10.20 Laboratory Technologist

- 10.20A Medical Laboratory Technologist
- 10.20B Dental Laboratory Technologist
- 10.20C Cytotechnician
- 10.20D Histological Technician

10.21 Laboratory Assistant

- 10.21A Medical Laboratory Assistant
- 10.21B Certified Laboratory Assistant

10.22 Medical Technologist

10.23 Pharmacy Assistant or Pharmacy Aide

10.24 Dietetic Aide

10.24A Dietary Assistant

10.24B Dietary Technician

10.25 Dental Hygiene Technician

10.26 Orthopedic Technician

10.27 Prosthetics and Orthotics Technologist

10.28 Ophthalmic Dispensing Technologist

10.29 Medical Emergency Technician

10.30 Nuclear Medicine Technician

10.31 Medical Administrator

10.31A Hospital Supervisor

10.31B Medical Recreational Supervisor

10.31C Long Term Care Administrator

10.31D Nursing Home Administrator

10.31E Hospital Unit Manager

10.31F Health Care Manager

10.31G Health Facilities Manager

10.32 Medical and Dental Office Assistant

10.32A Administrative Medical Assistant

10.32B Medical Office Assistant

10.32C Dental Office Assistant

10.33 Medical Receptionist

10.34 Medical Records Technician

10.35 Hospital Ward Clerk

10.36 Medical Records Librarian

10.37 Medical Records Library Technologist

10.38 Environmental Health Technician

10.38A Environmental Health Assistant

10.38B Public Environmental Health Technician

10.39 Public Health Inspector

11.00 Recreation and Parks -- focus on adequate recreational facilities and safe and constructive activities for people of all ages.

- 11.01 Recreation Supervisor or Recreation Manager
- 11.02 Recreation Program Leader or Recreation Leader
- 11.03 Activity Leader
- 11.04 Recreation Assistant
  - 11.04A Recreation Aide
  - 11.04B Recreation Technician
- 11.05 Recreation Service Aide
- 11.06 Recreational Teacher Aide
- 11.07 Recreation Therapy Technologist
- 11.08 Resort Manager
- 11.09 Tourist Server
- 11.10 Park Manager
- 11.11 Park and Recreation Supervision

12.00 Social Work -- concern for the physical, social and economic well-being of individuals as they function within the social settings of their families, neighborhoods and communities.

12.01 Social Service Assistant

12.01A Social Worker Assistant

12.01B Social Service Aide

12.01C Social Service Technician

12.01D Community Service Technician

12.01E Community Aide

12.01F Human Service Aide

12.02 Neighborhood Worker

12.03 Youth Work Aide

12.04 Juvenile Rehabilitation Aide

12.05 Social Welfare Aide

12.06 Interview Aide

12.07 Casework Aide

12.08 Family Welfare Aide

12.09 Home Extension Aide

12.10 Community Aide: Homemaker

12.11 Home Health Aide

12.12 Coordinator of Volunteers

12.13 Urban Affairs Technologist

12.14 Public Assistance Technologist

12.15 Social Service Counseling Aide

Summary

The broad picture of human service occupational education within the two-year college is presented through an overview of the literature and the data from 194 two-year colleges. The need for increased effort in human service occupational education is discussed through an examination of literature that deals with two-year colleges and the changing and growing societal needs. The availability of the two-year college and the nature of the college's commitment to the community and to community needs appears to be a mandate for greater involvement of these colleges in human service occupational education.

Curricula through which human service paraprofessionals are educated were examined. The literature related to occupational education indicates that three schools of thought applicable to human service occupational education exist: experiential, liberal arts/general education, and eclectic. The curricular offerings of the colleges surveyed were also examined and are discussed. The human service curricula within the colleges surveyed reflected four curricular emphasis patterns: Laboratory-Practicum, General Education, General-Specialized, and Specialized Education. It appears that the conceptual bases of all three schools of thought culled from the literature are clearly represented in the curricular data of the colleges surveyed.

Occupational titles representing the scope of human service occupational opportunities are presented. Codification of the human service entry titles from the survey data takes the form of a "Taxonomy of Human Service Occupations." The taxonomy appears to be a valuable tool for presenting the breadth and depth of the area called human services.

This preliminary report demonstrated the present state of human service occupational education as it is reflected in the literature and in the data from the colleges surveyed.

The Future*

This preliminary report of "New Careers in Human Services: A Challenge to the Two-Year College" brings forth implications that can be classified into two categories -- the task (the total problem: numbers of programs, numbers of students, numbers of positions available for graduates, needs for new programs) and the tools (the various methods of meeting the task).

The task itself is many-sided. The increasing numbers of positions available in human services, the unmet need for trained personnel, and indeed the various approaches to training these people are but several aspects of it. As can be gleaned from the questionnaire responses from 194 two-year institutions of higher learning, 1006 different programs already exist, training students

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*This section was contributed by Dr. Theodore Kiffer, the director of larger future study in human services for the Center for the Study of Higher Education.

for 324 fields of employment in technician/aide categories. The different emphases of the training institutions are apparent: some stress skill-practicum curricula while others stress theoretical-general education approaches. Is one of these approaches superior to a given program? Which produces the most successful graduates? Then, too, some schools have abandoned certain two-year human service curricula. Why? Could another school avoid the pitfalls that cause cancellation of programs?

To provide a basic tool to meet the increasing demand for well-trained human service technicians, the Center for the Study of Higher Education at Penn State proposes to produce a "Handbook for Two-Year Human Service Programs," which would discuss, among other things, such aspects as projected needs in the human services, entrance salaries for graduates, licensing and accrediting agencies and procedures, faculty and facility requirements, and costs of offering a new program. This handbook will help a college administrator determine if a need for a new program really exists in the college's service area. And, if such need is present, the handbook will provide the administrators with information on how to implement the new program, including model curricula and a complete description of successful programs elsewhere.

Not only applicable to two-year colleges, the handbook may also prove useful to universities with two-year programs at related

campuses or centers as well as to colleges that specialize in the education of teachers. Perhaps some of these schools, especially those in geographic areas not serviced by a two-year college, will soon be persuaded to assume a role in relation to human service technology and offer such courses, and in that case, the handbook would be an invaluable guide through unfamiliar territory.

The challenge to fulfill human needs is great, and those technicians and aides trained in human service programs can help provide the needed manpower. More and more young people will be needed in these fields in the future, and it seems that most will reach this goal through the two-year colleges. The colleges themselves must be prepared to offer the best and most efficient programs for these fields, and it is hoped the handbook will assist them in this task.

APPENDIX A

References for Societal Problems That Relate to Human Service Needs

Economically and Culturally Disadvantaged

McKelpin, Joseph P., ed. Planning Meaningful Educative Experiences for Culturally Disadvantaged Learners. Atlanta, Georgia: Southern Education Foundation, 1965.

Goldberg, Gertrude S. "Job and Career Development for the Poor." Information Retrieval Center on the Disadvantaged Bulletin, II, 4, 1-11.

Mentally and Physically Disabled

Kugel, Robert B. and Wolfensberger, Wolf. Changing Patterns in Residential Services for the Mentally Retarded. Washington, D. C.: President's Committee on Mental Retardation, 1969.

Yuker, Harold E., Feldman, Martin A., Fracchea, John F., Younng, Janet H. The Modification of Educational Equipment and Curriculum for Maximum Utilization by Physically Disabled Persons. Albertson, New York: Human Resources Center, 1967.

Illiteracy

Cohen, M. "Some Dimensions of Illiteracy in the United States - One in 50 or 50%." Wilson Library Bulletin, 44 (September, 1964), 45-48.

Cole, K. "Illiteracy, Abettor of Poverty." Focus, 20 (January, 1970), 12.

Aged

Rosow, Irving. Social Integration and the Aged. New York: Free Press, Inc., 1967.

Unemployed and Underemployed

Meyers, Samuel M. The Unemployed and Underemployed, A Study of Applicants for Laborer Jobs. Washington, D. C.: Bureau of Social Science Research, Inc. (November, 1966).

Rapid Population Growth

"Population Estimates and Projections." Current Population Report, Series P-25, 445 (June 22, 1970), 1-2.

Urbanization

Waits, Marilyn. "Ivy in the Ghetto." American Education, 5, 1 (January, 1969), 26-28.

Reduced Manual Labor Needs

Venn, Grant. Man Education and Work. Washington, D. C.: American Council on Education, 1964, p. 4.

Arnstein, G. E. "The Mixed Blessings of Automation." Automation, Education, and Human Values. Edited by W. W. Brickman and S. Lehrer. New York: School and Society Books, 1966, pp. 65-66.

Changing Bargaining Priorities Among Unionized Segments of Society

Dunlop, John T. "Major Issues in New Sector Bargaining." Emerging Sectors of Collective Bargaining. Edited by Seymour Wolfbein. Braintree, Massachusetts: D. H. Mark Publishing Company, 1970, pp. 13-14.

BIBLIOGRAPHY

A Directory of Cooperative Education: Its Philosophy and Operation in Participating Colleges in the United States and Canada. Philadelphia, Pennsylvania: Cooperative Education Association, Drexel University, 1970.

A Guide for Health Technology Program Planning. Washington, D. C.: Jointly by the National Health Council and American Association of Junior Colleges, 1967.

Almarode, R. L. Guidelines for Hospitality Education in Junior Colleges. Washington, D. C.: American Association of Junior Colleges, 1967.

American Association of Junior Colleges, "Emphasis: Occupational Education in the Two-Year College," (addresses and recommendations presented at a conference sponsored by the Midwest Technical Education Center and the American Association of Junior Colleges), Washington, D. C., 1966.

"A Promising Future for Auxiliary Personnel Programs." Occupational Education Bulletin, 3 (January 15, 1968), 2-3.

Arnstein, G. E. "The Mixed Blessings of Automation." Automation Education and Human Values. Edited by W. W. Brickman and S. Lehrer. New York: School and Society Books, 1966.

Auxiliary School Personnel. Washington, D. C.: National Education Association, 1968.

Avritch, Ronald T. "Vocational Education: A Continuing Problem." The Subjects in the Curriculum. Edited by Frank L. Steeves. New York: Odyssey Press, 1968.

Beck, B. "Wanted Now: Social Work Associate ." Social Welfare Forum. New York City: Columbia University Press, 1963, 195-205.

Benjamin, J., Freedman, M., and Lynton, E. Pros and Cons: New Roles for Non-Professionals in Corrections. Washington, D. C.: U. S. Department of Health, Education, and Welfare, Welfare Administration, Office of Juvenile Delinquency and Youth Development, 1966.

Berg, I. Education and Jobs: The Great Training Robbery. New York: Praeger Publishers for the Center for Urban Education, 1970.

Bernard, M. "New Outlooks for Occupation Change in the United States." Administering the Community College in a Changing World. Edited by S. V. Martorana and P. F. Hunter. Buffalo, New York: The State University of New York at Buffalo, 1966.

Blocker, C., Plummer, R. H., and Richardson, R. C. The Two-Year College: A Social Synthesis. New York: Prentice Hall, Inc., 1965.

Bloomberg, C. N. Notes for Training Day Care Aides: The Meaning of Play. Washington, D. C.: Howard University Center for Youth and Community Studies, 1965.

Bratton, W. V. Report of Study of Utilization of Auxiliary Personnel Assigned to Social Service in Public and Voluntary Social Agencies. Washington, D. C.: U. S. Department of Health, Education, and Welfare, Bureau of Family Service, 1963.

Brickman, W. W. and Lehrer, S., eds. Automation, Education and Human Values. New York: School and Society Books, 1966.

Breland, D. "The Efficient Use of Child Welfare Personnel." Children, 12 (May-June, 1965), 91-96.

Burnside, I. M. "Sensory Stimulation: An Adjunct to Group Work with the Disabled Aged." Mental Hygiene, 53 (July, 1969), 381-388.

Byram, H. M. and Wenrich, R. C. Vocational Education and Practical Arts in the Community School. New York: The Macmillian Company, 1956.

Careers in Urban Regional Planning. San Bernardino, California: Department of Geography, San Bernardino Valley College, 1969.

Clark, B. R. The Open Door College. New York: McGraw-Hill Book Company, 1966.

Cohen, A. M. "Junior College Objectives." School and Society, 97 (Summer, 1969), 330-333.

Cohen, A. M. and Prihoda, J., eds. The Junior College Curriculum. New York: Education Services Corporation, 1968.

Cohen, M. "Some Dimensions of Illiteracy in the United States: One in 50 or 50%." Wilson Library Bulletin, 44 (September, 1969), 45-48.

Cole, K. "Illiteracy, Abettor of Poverty." Focus, 20 (January, 1970), 12.

Community College Programs for Public Service Occupations. Berkeley, California: Institute for Local Self Government, October, 1969.

Connor, F. E. and Ellena, W. J. Curriculum Handbook for School Administrators. Washington, D. C.: American Association of School Administrators, 1967.

Denham, W. H. and Walker, W. L., and Gross, J. H. Training Program for Neighborhood Workers. Washington, D. C.: Howard University, Center for Youth and Community Studies, 1965.

Devall, W. B. "Community College: A Dissenting View." Educational Record, 49, 2 (Spring, 1968), 168-172.

Dixon, H. A. The Organization and Development of Terminal Occupational Curricula in Selected Junior Colleges. Ogden, Utah: Weber College, 1944.

Doll, R. C. Curriculum Improvement. Boston: Allyn and Bacon, Inc., 1970.

Dunlop, J. T. "Major Issues in New York Sector Bargaining." Emerging Sectors of Collective Bargaining. Edited by S. Wolfbein. Braintree, Massachusetts: D. H. Mark Publishing Company, 1970.

Dwyer, W. G. "Developing and Maintaining Effective Curriculums in the Two-Year College." Administering the Community College in a Changing World. Edited by S. V. Martorana and P. F. Hunter, Buffalo, New York: The State University of New York at Buffalo, 1966.

Esbensen, T. "Should Teacher Aids be More Than Clerks?" Phi Delta Kappan, 47 (January, 1966), 237-238.

Ewalt, J. "The Use of the Non-Professional in Mental Health." New Careers: Ways Out of Poverty for Disadvantaged Youth (a conference report). Edited by J. Fishman, A. Pearl, and B. MacLennan. Washington, D. C.: Howard University, Center for Youth and Community Studies, 1965, pp. 38-43.

Extending Campus Resources: Guide to Using and Selecting Clinical Facilities for Health Technology Programs. Washington, D. C.: American Association of Junior Colleges, 1968.

"Facts About Older Americans." Aging, 175 (May, 1969), 2-13.

"Facts on Health Career." Opportunities, 1966-1975. New York: Greater New York Hospital Association, 1968.

Farrar, M. and Hemmy, M. L. "Use of Non-Professional Staff in Work with the Aged." Social Work, 8 (July, 1963), 44-50.

Fern, G. H. What is Vocational Education? Chicago: American Technical Society, 1944.

Fields, R. R. "Implications of Occupational Change for Community College Administration." Administering the Community College in a Changing World. Edited by S. V. Martorana and P. F. Hunter. Buffalo, New York: The State University of New York at Buffalo, 1966.

Finch, R. H. "Career Education: A Program for Community Colleges." Junior College Journal, 40 (November, 1969), 12-14.

Flanders, R. "Employment Patterns for the Seventies." Compact, 4 (August, 1970), 7.

Ginzberg, E. The Development of Human Resources. New York: McGraw-Hill Book Company, 1966.

Gleazer, E. J. Jr. A New Social Invention: The Community College, Washington, D. C.: American Association of Junior Colleges, 196[illegible].

Gleazer, E. J. Jr. "The Community College Issue of the 1970's." Educational Record, 51 (Winter, 1970).

Gleazer, E. J. Jr. This is the Community College. Boston: Houghton Mifflin Company, 1968.

Goldberg, A. J. "Education for Freedom and Equality." Junior College Journal, 36 (September, 1965), 7.

Goldberg, G. S. "Job and Career Development for the Poor." Information Retrieval Center on the Disadvantaged Bulletin, II, 1-11.

Goldberg, G. S. "Non-Professional in Human Services." Non-professionals in the Human Services. San Francisco: Jossey-Bass, Inc., 1969.

Goldberg, G. S. Report on Visiting Homemakers. New York: Mobilization for Youth, 1966.

Grant, J. "The Industry of Discovery: New Roles for the Non-Professional." New Careers for the Poor: The Nonprofessional in Human Services. Edited by A. Pearl and F. Reisman. New York: Free Press, 1965, pp. 93-124.

Green, E. "People, Jobs and Priorities." Compact, 4 (August, 1970), 4.

Gwynn, J. M. and Chase, J. B., Jr. Curriculum and Social Trends. New York: The Macmillian Company, 1969.

Hallstrom, R. W. "Three New Twists in Occupational Education." Junior College Journal, 38 (November, 1967), 46-48.

Hammond, J. J. "Proposal for Occupational Teacher Teams." Compact, 4 (August, 1970), 29-33.

Harris, N. C. "Major Issues in Junior College Education." Educational Record, 45 (Spring, 1964), 128-138.

Harris, S. The Market for College Graduates. Cambridge, Massachusetts: Harvard University Press, 1949.

Hoyt, Kenneth B. "The Community Colleges Must Change." Compact, 4 (August, 1970), 37-38.

Innovation in Education: New Directions for the American School. New York: Committee for Economic Development, 1968.

Job Descriptions for Community Aides, Washington, D. C.: Center for Youth and Community Studies, Howard University, 1965.

Johnson, B. L. "Change and the Junior College." School and Society, 97 (April, 1969), 248-254.

Johnson, B. L. Islands of Innovation Expanding. Beverly Hills, California: Glencoe Press, 1969.

Junior College Journal, 38 (February, 1968), 76.

Kaufman, J. J., Schaefer, C. J., Lewis, M. V., Stevens, D. W., and House, E. W. The Role of the Secondary Schools in the Preparation of Youth for Employment. University Park, Pennsylvania: Institute for Human Resources, The Pennsylvania State University, 1967.

Keeler, F. J. Principles of Vocational Education. Boston: D. C. Heath and Company, 1948.

Kelley, W. and Wilbur, L. "Junior College Development in the United States." School and Society, 97 (December, 1969), 485-498.

King, A. R. and Brownell, J. A. The Curriculum and Disciplines of Knowledge. New York: John Wiley and Sons, Inc., 1966.

Knudsen, M. "Updating Arizona's Junior College Curriculum." Arizona Teacher, 54 (September, 1965), 20.

Koch, M. S. and Woolley, P. M. "Established: A Curriculum to Train Urban Professional Assistants." Junior College Journal, 38 (October, 1967), 20-24.

Koos, L. V. The Junior College, Vol. 1. Minneapolis, Minnesota: The University of Minnesota, 1924.

Kugel, R. B. and Wolfensberger, W. Changing Patterns in Residential Services for the Mentally Retarded. Washington, D. C.: Government Printing Office, President's Committee on Mental Retardation, 1969.

Kurland, S. H. Associate of Arts Program for Training Mental Health Associates. Cantonville, Maryland: Cantonsville Community College, 1970.

Larkin, P. G. and Teeple, J. B. "Shift in Demand for Services Will Change Education." College and University Business, 47 (November, 1969), 91-95.

Leighbody, B. "Vocational Education." New Curriculum Development. Edited by Glenys G. Unrich. Washington, D. C.: Association for Supervision and Curriculum Development, 1965.

LeVander, H., Scott, R. W., Rockefeller, W., and Curtis, K. M. "Ranking Occupations Programs." Compact, 4 (August, 1970), 12-14.

Lombardi, J. "Emergent Issues in Administration." Junior College Journal, 35 (November, 1964), 4-8.

Lombardi, J. "Occupational Education in California Junior Colleges." Educational Record, 45 (Spring, 1964), 142-147.

McKelpin, J. P., ed. Planning Meaningful Educative Experiences for Culturally Disadvantaged Learners. Atlanta, Georgia: Southern Education Foundation, 1965.

McLure, W. P. "Vocational and Technical Education." The Subjects in the Curriculum. Edited by Frank L. Steeves. New York: The Odyssey Press, Inc., 1968.

McNair, Robert E. "Flexibility in the State Approach." Compact, 4 (August, 1970), 5-6.

Martinson, J. and Graham, M. D. Training Teacher Assistants in Community Colleges: A Survey of Experience to Date. Washington, D. C.: Communication Service Corporation, 1968.

Martorana, S. V. and Hunter, P. F. Administering the Community College in a Changing World. Buffalo, New York: The University Council for Education Administration and the School of Education, State University of New York at Buffalo, 1966.

Martorana, S. V. "Progress and Plans in the Empire State." Junior College Journal, 35 (May, 1965), 10-13.

Matthews, H. A. "In Educating for 21st Century Manpower Needs: Tomorrow is Now." American Education, 3 (June, 1967), 21-22.

Medsker, L. L. "Changes in Junior Colleges and Technical Institutes," Emerging Patterns in American Higher Education, ed. by Logan Wilson. Washington, D. C.: American Council of Education, 1965.

Medsker, L. L. "Implications of Social and Cultural Change for Junior College Administrators." Administering the Community College in a Changing World. Edited by S. V. Martorana and P. F. Hunter. Buffalo, New York: The State University of New York at Buffalo, 1966.

Medsker, L. L. The Junior College: Progress and Prospect. New York: McGraw-Hill Book Company, 1960.

Menefee, S. and Orcutt, J., eds. Focus on Action: A Handbook for Developing Junior Colleges. Washington, D. C.: American Association for Junior Colleges, 1969.

Messersmith, L. E. and Medsker, L. L. Accrediation of Vocational-Technical Curricula in Post Secondary Institutions. Berkeley, California: Center for Research and Development in Higher Education, 1969.

Meyers, S. M. "The Unemployed and Underemployed: A Study of Applicants for Laborer Jobs." Washington, D. C.: Bureau of Social Science Research, Inc., November, 1966.

Mitchell, L., Kleen, W. L., and Fishman, J. R. Training for Community Mental Health Aides: Leaders of Child and Adolescent Therapeutic Activity Groups. Washington, D. C.: Howard University Institute for Youth Studies, Center for Community Studies, May, 1966.

Monagan, G. C., Jr. "A Recreation Supervision Curriculum for the Junior College." Junior College Journal, 38 (May, 1968), 30-34.

Mosher, F. C. Professional Education and the Public Service. Berkeley, California: University of California, Center for Research and Development in Higher Education, April, 1968.

National Center for Educational Statistics, A Taxonomy of Academic Disciplines (Draft). Washington, D. C.: Office of Education, 1969.

Natzke, J. H. and Bennett, W. S. Jr. "Teacher Aide Use and Role Satisfaction of Inner - City Teachers." Education and Urban Society, II (May, 1970), 295-314.

Occupational Education Bulletin. Bulletin of the American Association of Junior Colleges, Vol. 3 through 8, January 1968 - June 1970.

Occupational Education in Illinois Junior Colleges. Chicago: Illinois, State Chamber of Commerce, March, 1969.

Paige, R. F. "Problem of Responsibility for Recreation." Parks and Recreation, 4 (October, 1969), 27-28.

Parnell, D. "Oregon Public Demands Occupational Programs." Compact, 4 (August, 1970), 8-9.

Pearl, A. and Reisman, F., eds. New Careers for the Poor. New York: Free Press, 1968.

Peterson, R. "Occupational Education - The Ugly Stepsister." Compact, 4 (August, 1970), 3.

Phenix, P. H. Education and the Common Good. New York: Harper and Brothers, 1961.

Pope, L. and Crump, R. "School Drop-outs as Assistant Teachers." Young Children, 21 (October, 1965), 13-23.

"Population Estimates and Projections." Current Population Report, Series P-25, June 22, 1970, 1-2.

Priest, B. J. and Holt, H. D. "Proposal for Occupational Teacher Teams." Compact, 4 (August, 1970), 34-35.

Prosser, C. A. and Quigley, T. H. Vocational Education in a Democracy. Chicago: American Technical Society, 1949.

Riesman, F. "The Revolution in Social Work: The New Non-professionals." Trans-Action, 2 (November-December, 1964), 12-17.

Richan, W. C. "A Theoretical Scheme for Determining Roles of Professional and Nonprofessional Personnel." Social Work, 6 (October, 1961), 22-28.

Robinson, A. M. The Psychiatric Aide: His Part in Patient Care. Philadelphia: J. B. Lippincott, Co., 1959.

Robinson R. and Roman, M. "New Directions for the Psychiatric Aide." New Careers: Ways Out of Poverty for Disadvantaged Youth, (a conference report). Edited by F. Fishman, A. Pearl and B. MacLennan. Washington, D. C.: Howard University Center for Youth and Community Studies, 1965, pp. 49-62.

Rosow, I. Social Integration of the Aged. New York: Free Press, 1967.

Russo, M. "14 Million Vocational Students by 1975." American Education, 5 (March, 1969), 10-11.

Sansom, A. "As I See It." Parks and Recreation, 4 (May, 1969), 68-70.

"Seniors Succeed as Teacher Aides in Florida High School Projects." Aging, 171 (January, 1969), 9-10.

Sessoms, H. D. "Manpower Crisis: As Others See Us." Parks and Recreation, 5 (January, 1970), 39-41.

"Six Colleges Give Free Tuition to Aging: Data Sought on Others." Aging, 172 (February, 1969), 12.

Smallenberg, C., Smallenberg, H., and Bonwell, W. D. "Our Obsolescent Leisure Time Education." Educational Digest, 64 (October, 1969), 12-14.

Steinberg, S. S. and Shaty, E. O. "Junior Colleges and the New Careers Program." Junior College Journal, 38, (February, 1968), 12-22

Stewart, I. M. The Education of Nurses: Historical Foundation and Modern Trends. New York: The Macmillian Company, 1943.

Swyer, W. G. "Developing and Maintaining Effective Curriculums in the Two-Year College." Administering the Community College in a Changing World. Edited by S. V. Martorana and P. F. Hunter. Buffalo, New York: The State University of New York at Buffalo, 1966.

The Community Services Technician: Guide for Associate Degree Programs in the Community and Social Services. New York: Council on Social Work Education, 1970.

Thornton, J. W., Jr. The Community Junior College. 2nd ed. New York: John Wiley and Sons, 1966.

Tibbitts, C. "Manpower Needs in the Field of Aging." Aging, 173 (March, 1969), 3-5.

Trent, J. W. and Medsker, L. L. Beyond High School. San Francisco, California: Jossey-Bass, Inc., Publishers, 1968.

Underwood, R., Smith, C., DeWoody, D., and Vandiver, R. Tips for Teachers of Disadvantaged Youth. Tahlequah, Oklahoma: Northeastern State College, 1969.

United States Employment Service, Manpower Administration, Bureau of Employment Security, U. S. Department of Labor. Dictionary of Occupational Titles. Vol. II. 3rd ed. Washington, D. C.: U. S. Government Printing Office, 1965.

U. S. Department of Labor, Manpower Administration. Breakthrough for Disadvantaged Youth. Washington, D. C.: Government Printing Office, 1969.

U. S. Office of Education. Fact Book: Office of Education Programs. Washington, D. C.: Government Printing Office, 1968.

U. S. Veterans Administration, Department of Medicine and Surgery. A Study of the Social Work Assistant in the Veterans Administration. Washington, D. C.: U. S. Veterans Administration, 1965.

Venn, G. "Eye on Tomorrow's Jobs." American Education, 5 (March, 1969), 12-15.

Venn, G. Man Education and Work. Washington, D. C.: American Council on Education, 1964.

"Vermont Finds Older Library Aides Boon in 4 County, 2,500 Mile Area." Aging, 173 (March, 1969), 9.

Vocational, Technical and Continuing Education in Pennsylvania: A Systems Approach to State - Local Program Planning. Harrisburg, Pennsylvania: Pennsylvania Department of Public Instruction, 1969.

Waits, M. "Ivy in the Ghetto." American Education, 5 (January, 1969), 26-28.

Woodman, E. M. "Our Message and Our Mandate." Junior College Journal, 40 (September, 1969), 6-7.

Wolfbein, S. L. Occupational Information. New York: Random House, 1968.

Yuker, H. E., Feldman, M. A., Fracchea, J. F., and Younng, J. H. The Modification of Educational Equipment and the Curriculum for Maximum Utilization by Physically Disabled Persons. Albertson, New York: Human Resources Center, 1969.

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	Transfusion Therapy Aide	10.06A	45
U	Urban Affairs Technologist	04.05	38
	Urban and Regional Planner	04.02	38
	Urban Development Assistant	04.04	38
	Urban Development Technician	04.04	38
	Urban Planner	04.01	38
	Urban Redevelopment and Public Housing	04.03	38
	Urban Technical Aide	04.06	38
V	Vocational Music Education Aide	03.01H	36
	Vocational Nurse	10.01E	45
X	X-ray Technician	10.19C	47
Y	Youth Work Aide	12.03	51